

## Use of Benzodiazepines in Patients with COPD

It is well known that respiratory depression is a potential adverse drug event (ADR) of benzodiazepines (BZDs). This effect can be seen even with sporadic or inconsistent use of these therapies. Patients with COPD are at particularly high risk for these significant respiratory events, especially with regular, long-term use. According to a 2023 report from the American Lung Association, there are approximately 12.5 million patients that have COPD, with treatment costing about \$50 billion annually. In the state of Texas, there are 1.34 million adults with the diagnosis and treatment costing \$2.3 billion annually. This disease is most often found in older patients who are already at higher risk of ADRs when using benzodiazepines chronically.

Chen et al. (2015) demonstrated in a matched case-control study that the use of BZDs was associated with an increased risk of respiratory failure (adjusted odds ratio [aOR] 1.56, 95% confidence interval [CI] 1.14-2.13) when using these therapies for the management of insomnia. Ekstrom et al. (2014) observed in a longitudinal consecutive cohort study that BZD use in patients with severe respiratory disease was associated with increased mortality in a dose-dependent manner (hazard ratio [HR] 1.21, 95% CI 1.02-1.44). Due to these factors, it is recommended that BZD therapies are avoided in patients when possible, particularly when long-term use is required for chronic disease state management (e.g. sleep aids for insomnia, etc.).

Particularly in older adults (age 65 years and older), BZDs risk for ADRs can increase due to impaired hepatic metabolism and other comorbidities. Vozoris et al (2014) conducted a retrospective population-based cohort study which demonstrated that older adults with COPD and new BZD prescriptions had a higher risk for respiratory exacerbations and emergency room visits compared to those not taking BZDs (relative risk [RR] 1.92, 95% CI 1.69-2.18). If BZD therapy is deemed necessary, lorazepam, oxazepam, and temazepam are the preferred therapies in elderly patients due to their lack of hepatic metabolism.

The 2024 GOLD guidelines for the management of COPD can be found here: [GOLD-2024 v1.0-30Oct23 WMV.pdf \(goldcopd.org\)](https://goldcopd.org/GOLD-2024_v1.0-30Oct23_WM.V.pdf)

## Intervention Summary

The following table shows a summary of the proposed intervention topics and the number of potential patients that may be targeted by each intervention. The number of potential patients is based on the most recent ICER. The actual number of targeted patients for each intervention will be based on the ICER for the month the intervention is performed.

Outcomes assessment will be completed 180 days after the intervention is performed.

Proposed Intervention Topic	MCO	Pediatric (Age 18 and below)	Adult
<ol style="list-style-type: none"> <li>1. Include patients (all ages) taking a benzodiazepine for at least 30 days in the last 90 days with a diagnosis of COPD in the last 730 days.</li> <li>2. Exclude patients taking clonazepam, lorazepam intensol, and rectal diazepam.</li> <li>3. Exclude patients with a diagnosis of infantile spasms in the last 730 days.</li> </ol>	1,646	0	5



**TEXAS**  
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[TODAY]

[adrs1]  
[adrs2]  
[adrs3]  
[adrs4]

DEAR [tadrs1]:

In compliance with the OBRA '90 federal legislation, state Medicaid agencies are mandated to conduct Retrospective Drug Utilization Review Programs (RDUR). We hope that this retrospective DUR may assist you in optimizing your Medicaid patient's drug therapy. One way to achieve this goal is to identify potential drug therapy problems that may place patients at risk, particularly if multiple providers are identified. This RDUR program is informational in nature and allows you to incorporate the information provided into your continuing assessment of the patient's drug therapy requirements.

During a recent review of pharmacy claims data over the past 3 months, it was noted that the following patients, for which at least one claim is associated with your provider number, have received a high-risk benzodiazepine while also having a diagnosis of chronic obstructive pulmonary disease (COPD).

**[namelist]**

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[GOLD-2024\\_v1.0-30Oct23\\_WMV.pdf \(goldcopd.org\)](#)

The enclosed historical profile is provided for your evaluation and consideration. In presenting this information to you, we recognize that the management of each patient's drug therapy depends upon an assessment of the patient's entire clinical situation about which we are not fully aware. It is also possible that your license number may have been inadvertently assigned to the claim as an error at the pharmacy during the billing process. Some prescribed medications as well as some recommended laboratory monitoring or physical examinations may not appear on the patient's profile because they may

*Administered by Acentra*  
PO Box 3570  
Auburn, AL 36831  
(800)225-6998 x3033 Fax (833) 470-0598



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have been privately purchased or were not billable to Medicaid Services.

The success of the DUR program is enhanced by the two way exchange of information. Therefore, at your convenience, we would appreciate learning of your assessment of this information and of any action taken in response to this notice. Although your participation in this program is voluntary, we find your feedback helpful in adjusting our program to address clinically important problems. We thank you for reviewing this information and caring for Texas Medicaid patients. *Please submit your response using the online provider response portal or complete the enclosed response form and fax it to (833) 470-0598. The online provider response portal can be accessed at <https://forms.office.com/r/CXGEADqkRd> or by scanning the QR code listed below.*



**At the bottom of this letter are the specific prescriptions attributed to you by the dispensing pharmacy. In addition, if multiple prescribers are involved in the therapy mentioned above, each will receive this information.** Thank you for your professional consideration.

Sincerely,  
Medicaid Drug Use Review Board

References:

1. American Lung Association. COPD State Brief: Texas. 2023.
2. Chen SJ, Yeh CM, Chao TF, Liu CJ, Wang KL, Chen TJ, Chou P, Wang FD. The Use of Benzodiazepine Receptor Agonists and Risk of Respiratory Failure in Patients with Chronic Obstructive Pulmonary Disease: A Nationwide Population-Based Case-Control Study. *Sleep*. 2015 Jul 1;38(7):1045-50.
3. Ekström MP, Bornefalk-Hermansson A, Abernethy AP, Currow DC. Safety of benzodiazepines and opioids in very severe respiratory disease: national prospective study. *BMJ*. 2014 Jan 30;348:g445.
4. Vozoris NT, Fischer HD, Wang X, Stephenson AL, Gershon AS, Gruneir A, Austin PC, Anderson GM, Bell CM, Gill SS, Rochon PA. Benzodiazepine drug use and adverse respiratory outcomes among older adults with COPD. *Eur Respir J*. 2014 Aug;44(2):332-40. Curran HV, Collins R, Fletcher S, Kee SC, Woods B, Iliffe S. Older adults and withdrawal from benzodiazepine hypnotics in general practice: effects on cognitive function, sleep, mood and quality of life. *Psychol Med*. 2003 Oct;33(7):1223-37.
5. Global Initiative For Chronic Obstructive Lung Disease: Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease. 2024.

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PO Box 3570  
Auburn, AL 36831  
(800)225-6998 x3033 Fax (833) 470-0598



PRESCRIBER RESPONSE

All information used to generate the enclosed letter, including Prescriber identification, was obtained from Pharmacy Claims Data. If there appears to be an error in the information provided, please note the discrepancy. Thank you for your cooperation. As a reminder, the response can be submitted using the online provider response portal. The online provider response portal can be accessed at https://forms.office.com/r/CXGEADqkRd or by scanning the QR code listed below.



1. This patient **is** under my care:

- I have reviewed the information and will continue without change.
however, I did not prescribe the following medication(s)
and has an appointment to discuss drug therapy.
however, has not seen me recently.
however, I was not aware of other prescribers.
I have reviewed the information and modified drug therapy.
I have not modified drug therapy because benefits outweigh the risks.
I have tried to modify therapy, however the patient refuses to change.
I have tried to modify therapy, however symptoms reoccurred.

2. This patient **is not** under my care:

- however, I did prescribe medication while covering for other MD or in the ER.
but has previously been a patient of mine.
because the patient recently expired.
and has never been under my care.

3. I have reviewed the enclosed information and found it:

very useful useful neutral somewhat useful not useful.

4. Please check here if you wish to receive reference information on the identified problem. (Please provide a fax number if available - - .)

Comments:

Three horizontal lines for writing comments.

[adrs1] Case# [case\_no]
Letter Type [letter\_type]
[alert\_msg]
[criteria]

References:

1. American Lung Association. COPD State Brief: Texas. 2023.
2. Chen SJ, Yeh CM, Chao TF, Liu CJ, Wang KL, Chen TJ, Chou P, Wang FD. The Use of Benzodiazepine Receptor Agonists and Risk of Respiratory Failure in Patients with Chronic Obstructive Pulmonary Disease: A Nationwide Population-Based Case-Control Study. *Sleep*. 2015 Jul 1;38(7):1045-50.
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